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09/801,980	03/08/2001	Mark A. Laughlin	IN01144	5887

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SCHERING-PLOUGH CORPORATION  
PATENT DEPARTMENT (K-6-1, 1990)  
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EXAMINER
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LUCAS, ZACHARIAH

ART UNIT	PAPER NUMBER
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1648

DATE MAILED: 07/15/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/801,980

Applicant(s)

LAUGHLIN, MARK A.

Examiner

Zachariah Lucas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Status of the Application***

1. Claims 1-49 are pending and under consideration in the application. The claims read, generally, on methods of treating HIV-1 infections comprising administering interferon-alpha (IFN-alpha) to the infected patient.

### ***Specification***

2. The disclosure is objected to because of the following informalities: on page 3, line 20; it appears that there should be a period between the term "HAART," and the phrase "Twice weekly."

On page 3, line 3, the term "year,bu" should read -- year, but --.

Appropriate correction is required.

### ***Claim Objections***

3. Claims 4, 10, 19, 26, 39, and 43 are objected to because of the following informalities: these claims each introduce the anti-HIV therapy HAART by its acronym without first identifying this therapy by its complete title: Highly Active Anti-retroviral Therapy. Appropriate correction is required.

4. Claim 23 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the

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claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. This claim depends from claim 21 (indirectly), which describes a method of promoting a HIV-1-specific T-cell activity in a patient who has discontinued anti-HIV therapy by administering interferon alpha to the patient, and by re-initiating anti-HIV therapy for a sufficient time to reduce HIV-RNA plasma levels below the detectable limit. Claim 23 requires that the re-initiated anti-HIV therapy result in the reduction of the HIV-RNA plasma level below detectable limits. The claim is therefore not further limiting of the parent claim.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims each depend from claim 21. Claim 21 describes a method of promoting a HIV-1-specific T-cell activity in a patient who has discontinued anti-HIV therapy by administering interferon alpha to the patient, and by re-initiating anti-HIV therapy for a sufficient time to reduce HIV-RNA plasma levels below the detectable limit.

Claim 22 requires that the method also comprises the discontinuation of the therapy and administering the IFN-alpha for a sufficient time to lower the HIV-RNA plasma levels "below the patient's HIV-RNA plasma level prior to initiation of the anti-HIV therapy." It is unclear what is meant by this limitation as, when the re-initiated anti-HIV therapy is concluded, the HIV-

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RNA plasma level is already reduced below the levels prior to the initiation of the therapy. While the Applicant appears to be requiring a functional limitation to the administration of the IFN-alpha, it is not clear what this limitation is, or how it further limits the parent claim.

Claim 23 further limits the method of claim 22 such that the re-initiated anti-HIV therapy results in the reduction of the HIV-RNA plasma level below detectable limits. However, and the method of claim 21 already required such a result from the re-initiation, it is unclear how this claim is further limiting.

7. Claims 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim read on a method of promoting HIV-specific T-cell activity comprising "re-initiating administering an effective amount of an anti-HIV therapy for a time sufficient to lower HIV-RNA plasma levels below the detectable limit (50 HIV-RNA copies per mL of plasma)." It is unclear if the parenthetical is intended to define the detectable limit of HIV-RNA plasma levels below which the method must reduce the HIV-RNA levels, or if the parenthetical is identifying the level, to which the HIV-RNA is being reduced.

8. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim adds the further limitation of discontinuing anti-HIV therapy to the claimed method of promoting an HIV-1 specific T-cell activity. However, the method depends from claim 22, which already requires the discontinuation of the anti-HIV therapy. It is therefore

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unclear what the claim means by further requiring the discontinuation of such therapy where the therapy has already been discontinued.

9. Claims 25-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 25 is treated as representative of these claims. This claim describes a method promoting an HIV-1 specific T-cell activity in a patient by administering to a patient who has discontinued anti-HIV therapy an amount of IFN-alpha sufficient to lower the HIV-RNA plasma level below the level found prior to the initiation of the anti-HIV therapy. It is unclear what is meant by the last use of the term "anti-HIV-therapy" in line 5 of the claim. The claim requires that the patient has previously received anti-HIV therapy. However, such therapy is not typically discontinued unless there is a reduction in the HIV infection relative to the HIV presence prior to the initiation of the therapy. This would also indicate that there is probably a reduction in the HIV-RNA plasma level. Thus, if the anti-viral therapy referred to above is the discontinued therapy, the claim is requiring that the amount of IFN-alpha be sufficient to reduce the HIV-RNA to level that has presumably already been achieved by the discontinued therapy; i.e. no reduction of HIV-RNA need be made by the IFN-alpha.

However, there would be a reduction made if the HIV-RNA plasma levels are reduced in comparison to the levels found at the cessation of the anti-HIV therapy, but prior to the IFN-alpha therapy. However, such an outcome is not described by the claim unless one reads the last instance of anti-HIV-therapy to refer to the IFN-alpha administration, rather than the previously identified anti-HIV therapy.

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It is therefore unclear what is being claimed.

10. Claims 29 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims each depend from claim 25, which reads on a method of promoting a HIV-1-specific T-cell activity in a patient who has discontinued anti-HIV therapy. Each of these claims also "further comprises discontinuing anti-HIV therapy." It is unclear what therapy is being discontinued as the patients being treated have already discontinued anti-HIV therapy.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(f) he did not himself invent the subject matter sought to be patented.

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12. Claims 1, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Testa et al. in Us Patent 5,676,942. These claims read in methods of promoting an HIV-1 specific immune response in a patient comprising the administration of interferon alpha to the patient. Testa teaches compositions of interferon alpha that may be using in the treatment of HIV retroviral infections. Claims 9 and 10. Such compositions may or may not comprise interferon alpha 2. See e.g., columns 3, lines 48-49, col. 6, lines 61-65, and col. 7, lines 36-42. Because the reference teaches the administration of the same composition to the same population, it inherently teaches the same effect. The reference therefore anticipates the identified claims.

13. Claims 1,5, and 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Alber et al., U.S. Patent 5,928,636. These claims have been described above. Alber teaches a method of stimulating T-cells in a patient infected with HIV by administering to the patient an effective amount of a composition comprising an interferon alpha. Claims 38 and 40. Among the interferon alphas disclosed by the reference as usable in the claimed method are interferons alpha2A and alpha2B. Page 4, lines 26-39. The reference therefore teaches a method that anticipates the identified claims.

14. Claims 1, 5, 6, 7, 11-17, and 41-49 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,277,830, issued to Ganguly et al. These claims read on methods of promoting HIV-1 specific T-cell activity in infected patients by administering a pegylated IFN-alpha in combination with another anti-HIV therapy, including embodiments wherein the anti-HIV therapy is HAART. This reference teaches a combination therapy against patients co-



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infected by HIV-1 and HCV comprising pegylated IFN-alpha and an appropriate HAART combination. Col. 8, lines 20-26. Ganguly also teaches appropriate dosages of the pegylated IFN-alpha that overlap the presently claimed ranges. Columns 4-5. Although the reference does not specifically state that the combination would be effective in eliciting anti-HIV T-cell activity, such would have been an inherent result in the administration of the described composition. The reference therefore anticipated the identified claims.

15. Claims 1-49 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Laughlin et al., U.S. Application Publication 2002/0182179. This reference teaches methods of treating both treatment-naïve and treatment experienced patients with HIV infections by administering pegylated IFN-alpha alone, or in combination with, or sequentially to (before or after), another anti-HIV-1 therapy, including HAART. See e.g., abstract, claims 1-69, and page 6, paragraph 0068. The reference discloses that IFN-alpha may be used to treat HIV-1 infection in patients that have, and those that have not, received previous treatment with anti-HIV therapies. The reference further discloses ranges of dosages that either match, or overlap the dosages identified in the present claims. The reference therefore either anticipates, or renders obvious all of the currently claimed methods.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the

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inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

16. Claims 1-49 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. These claims describe claims also described by the claims of the U.S. Application Publication 2002/0182179, naming Mark A. Laughlin (the inventor of the present application), and two others as inventors of the claimed invention. Because these two applications have conflicting indications as to who invented the claimed subject matter, the present claims are being rejected under 35 U.S.C. 102(f).

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 7, and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert et al., U.S. Patent 6,042,822, in light of the teachings of Testa or Alber as applied to claims 1, 5, and 6 above. These claims describe methods of promoting HIV-1 specific immune responses in a patient by administering to the patient effective doses of pegylated interferon-alpha. As indicated above, Testa and Alber each teach methods of promoting such responses in patients by administering non-pegylated interferon-alpha. The references further teach preferred

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dosages of the interferon-alpha. Testa, col. 10, lines 23-53; and Alber, claims 38-40. While the range of dosages taught by Alber overlap with those of the claims currently under examination, the units of Testa are different, but, given the overlap involving Alber, they are assumed, absent further evidence, to also overlap with the presently claimed dosages. The references indicate that the compositions should be administered either 1 to 3 (Alber, claim 40), or three (Testa, col. 10, lines 45-53) times a week. However, neither Alber, nor Testa, teaches that the interferon-alpha proteins are, or may be, pegylated.

Gilbert teaches the pegylation of interferon-alpha. Abstract, claim 1. The reference further teaches that such pegylation improves one or more properties of the protein, including increasing its circulation life, and that such protein conjugates are useful for the treatment of HIV infections. Col. 1, lines 19-26, and col. 10, line 53-col. 11, line 5, respectively. Gilbert also teaches that the dosages depend on the proteins use, but that the composition is preferably administered once or twice a week. Col. 11, lines 20-23, and col. 11, line 65-col. 12, line 6. Thus, the reference both teaches pegylated interferon-alpha, and suggests its use as an anti-HIV treatment. While the reference does not teach the claimed dosages, in view of the knowledge in the art regarding such dosages (see e.g., Alber, *supra*), such dosages would be obvious to those in the art as optimization of the described compositions. Further, the patent also teaches that such pegylated interferon compositions may be administered once or twice a week. In view of the teachings of the reference indicating that the pegylation of the proteins increases their circulation life, and the teachings of Alber that un-pegylated proteins may also be administered down to once a week, it would be obvious to those in the art to administer the pegylated composition once a week. The reference therefore renders the claimed methods obvious.

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19. Claims 41, 42, 44, and 45-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Alber as applied to claims 1, 5, and 6 above, or Weiner et al., U.S. Patent 5,780,220, further in view of Gilbert. These claims read on methods of promoting HIV-1-specific T-cell activity in a patient having an HIV-1 infection by administering pegylated IFN-alpha with an effective amount of an anti-HIV therapy.

As indicated above, Alber teaches an antiviral composition comprising IFN-alpha. The composition comprises both IFN-alpha, and interleukin 12 (IL-12). See also, Alber, abstract. As the Applicant has not limited what is included by the term "anti-HIV therapy," the claim is being interpreted to read on IL-12, which is taught as being useful for the treatment of HIV infections. Further teachings of Alber have been described above.

Weiner teaches an anti-HIV composition that may comprise interferon alpha. Col. 17, lines 17-34. The anti-HIV composition disclosed is indicated to be effective against both HIV-1 and HIV-2. See e.g., col. 2, lines 58-65.

Neither Weiner, nor Alber, teaches the pegylation of the IFN-alpha. However, as indicated above, Gilbert does teach such pegylation. The Gilbert reference also teaches both that the pegylated IFN-alpha has certain advantages over non-pegylated forms (col. 1, lines 19-26), and that these conjugate forms of the protein have anti-HIV utility (columns 10-11). Thus, upon seeing either of Alber or Weiner in view of Gilbert, it would have been obvious to one of ordinary skill in the art to have used pegylated IFN-alpha for the treatment of HIV-1. The resulting treatment would have inherently resulted in the promotion of anti-HIV T-cell activity. While the specific dosage ranges identified in claims 45-49 have not been disclosed by these

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references, the Examiner believes that these ranges would be obvious as the optimization of the disclosed compositions for the same reasons as indicated above with reference to claims 7, and 11-17.

20. Claims 1-4, 6, 7-10, 12-24, and 25-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert (*supra*), in view of Vandamme et al. (*Antiviral Chemistry and Chemotherapy* 9:197-203), and further in view of Kalams et al. (*Journal of Virology* 73(8): 6721-28), and Alber (*supra*). These claims read on method of treating a patient who has ceased a prior anti-HIV therapy, including HAART, or, it seems, on methods wherein a patient is provided with alternating treatments of pegylated (or non-pegylated) IFN-alpha and HAART (see e.g., claims 18, and 21-24).

Gilbert was described above. The reference teaches the use of pegylated interferon alpha to treat HIV. The reference does not indicate whether the patient receiving the treatment has previously received other anti-HIV therapies. Nor does the reference teach that the IFN-alpha induces a positive T-cell activity against HIV in such patients.

Kalams teaches that, during HAART treatment, there is a decrease in the in vivo activated CTL activity against HIV, but an increase in anti-HIV CTL memory cells. Page 6726, and Abstract. Further, the Vandamme reference suggests that, once viral loads become undetectable, "alternative strategies could be used to target specifically these long-living [HIV] infected cells. Cytokines and other immune stimulators could be used to activate the resting T-cells..." Page 193. Thus, these two references indicate that, following HAART cessation upon lowering viral load below a detectable limit, it would be beneficial for an alternative therapy to

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be applied to stimulate resting T-cells, gone dormant during HAART, such that they could attack remaining HIV-infected cells, and thereby inhibit the spread of a renewed infection.

Alber teaches that, among the activities of IFN-alpha, the protein can activate macrophages and NK cells. Col. 1, lines 54-59. Thus, one skilled in the art would recognize that the pegylated IFN-alpha proteins disclosed in Gilbert would also have this activity. It would therefore be obvious to one of ordinary skill in the art to combine the compound of Gilbert (given the teachings of Alber), with the teachings of Kalams and Vandamme, such that they would know to administer to a patient an interferon alpha therapy, upon the discontinuation of HAART. It would therefore also be obvious to use these two therapies to complement each other in alternating treatment strategies.

As indicated above, the claims identifying preferred dosages are found obvious as obvious optimization of the disclosed composition over the teaching regarding dosages found in the art. The claims are therefore found obvious over the teachings of the prior art as indicated above.

### ***Double Patenting***

21. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

22. Claims 1-49 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9, 11-14, 25, 26, 49-57 60-65, and 68-72 of copending Application No. 09/516,673. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the current application cover overlapping subject matter to the method claims of the copending application. While the claims of the current application specifically limit certain embodiments of the claimed method to instances where the IFN-alpha treatments precede or succeed other anti-HIV therapies, the claims of the co-pending application also indicate that the IFN-alpha treatments may be used both in conjunction with, and in succession to such other treatments. The current claims therefore fall within the subject matter claimed in the co-pending application. Also, claims 7-17, and 41-49, which read on methods of using IFN-alpha alone, or in combination with other treatments, claim subject matter almost identical in scope to the claims of the other application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

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23. The following prior art references are made of record and are considered pertinent to applicant's disclosure. However, while relevant they are also not used as a basis for rejection for the stated reasons.

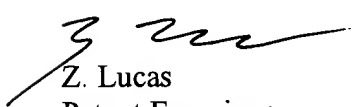
Orholm et al., AIDS 3: 97-100; and Sperber et al., J Interferon Res 12: 363-68. These references teach the anti-HIV effects of alpha interferon. They also teach that interferons may be used alone, or in combination with other drugs, for the treatment of HIV infection. The references are considered redundant to the Alber and Testa references.


Skurkovich et al., U.S. Patent 5,888,511 and Gringeri et al, Cellular and Molecular Biology 41(3): 381-87. These references indicate that the removal or inactivation of interferon alpha was useful in the treatment of HIV infections, and AIDS. These reference are considered relevant, but are not, however, deemed to call into question the enablement of the claimed inventions given the alternative teachings clearly demonstrating that IFN-alpha does have anti-HIV effects.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachariah Lucas whose telephone number is 703-308-4240. The examiner can normally be reached on Monday-Friday, 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on 703-308-4027. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

  
Z. Lucas  
Patent Examiner  
July 3, 2003

  
JAMES HOUSEL 7/14/03  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600